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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,510	07/25/2000	Fumiaki Kamijo	040405/0323	7595

7590

09/05/2002

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EXAMINER

GRIER, LAURA A

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 09/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/625,510

Applicant(s)

KAMIJO, FUMIAKI

Examiner

Laura A Grier

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because line 7 includes the legal phrase, "said". Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Odlen et al., U. S. Patent No. 4292467.

Regarding **claim 1**, the applicant's admitted prior discloses a personal computer including an operating system with means of adjusting the sound volume of the computer system

for multiple audio applications. However, the applicant's admitted prior art fails to specifically disclose a memory, and sound volume adjustment control means, thereof as claimed. The examiner maintains that such a memory and sound volume adjustment control means were well known in the art.

Regarding the memory and volume adjustment control means, Odlen et al. disclose a digital memory registers and other memory for storing information and functions levels for various radio receiver functions including volume and other audio effects. The information is stored in regards to the various audio facets such as whether the audio is AM, FM, tape or phonograph type. As well Odlen discloses a control means which may including a microprocessor or a CPU for accessing the information from the memory for adjustment either manually or automatically, wherein the adjustments includes a change in volume, accordingly as needed based on the selected audio information received from memory (col. 40-68 – col. 2, lines 1-7; col. 3, lines 64-68 – col. 4, lines 1-5, 28-46, and col. 6, lines 16-42), which is indicative of audio information (volume information) for individual applications.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of the applicant's admitted prior art by implementing a parallel technique including such a memory and control means for making adjustments according the information received of various audio extremities (devices) taught by Odlen, for the purpose of lessening or alleviating the inconvenience of having to change the volume each time a different audio device and/or application is being used or activated.

5. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Odlen et al.

Regarding **claim 9**, the applicant's admitted prior discloses a personal computer including an operating system with means of adjusting the sound volume of the computer system for multiple audio applications. However, the applicant's admitted prior art fails to specifically disclose a memory, and sound volume adjustment control means, thereof as claimed. The examiner maintains that such a memory and sound volume adjustment control means were well known in the art.

Regarding the memory and volume adjustment control means, Odlen et al. disclose a digital memory registers and other memory for storing information and functions levels for various radio receiver functions including volume and other audio effects. The information is stored in regards to the various audio facets such as whether the audio is AM, FM, tape or phonograph type. As well Odlen discloses a control means which may including a microprocessor or a CPU for accessing the information from the memory for adjustment either manually or automatically, wherein the adjustments includes a change in volume, accordingly as needed based on the selected audio information received from memory (col. 40-68 – col. 2, lines 1-7; col. 3, lines 64-68 – col. 4, lines 1-5, 28-46, and col. 6, lines 16-42), which is indicative of audio information (volume information) for individual applications.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of the applicant's admitted prior art by implementing a parallel technique including such a memory and control means for making adjustments according the information received of various audio extremities (devices) taught by Odlen, for the purpose

of lessening or alleviating the inconvenience of having to change the volume each time a different audio device and/or application is being used or activated.

6. **Claims 2 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Odlen et al. (herein, Odlen) in view of Hetherington, U. S. Patent No. 5289546.

Regarding **claims 2 and 10**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10, and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

7. **Claims 3 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen.

Regarding **claims 3 and 11**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

8. **Claims 4 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 4 and 12**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to be used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

**9. Claims 5 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Odlen.

Regarding **claims 5 and 13**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur.



**10. Claims 6 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 6 and 14**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur. However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

**11. Claims 7, 8, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 7, 8, 15 and 16**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur. However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus

it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

12. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Odlen et al.

Regarding **claim 17**, the applicant's admitted prior discloses a personal computer including an operating system with means of adjusting the sound volume of the computer system for multiple audio applications. However, the applicant's admitted prior art fails to specifically disclose a memory, and sound volume adjustment control means, thereof as claimed. The examiner maintains that such a memory and sound volume adjustment control means were well known in the art.

Regarding the memory and volume adjustment control means, Odlen et al. disclose a digital memory registers and other memory for storing information and functions levels for various radio receiver functions including volume and other audio effects. The information is stored in regards to the various audio facets such as whether the audio is AM, FM, tape or phonograph type. As well, Odlen discloses a control means which may including a microprocessor or a CPU with memory for storing program instructions for enabling the system to function accordingly, and accessing the information from the memory for adjustment either manually or automatically, wherein the adjustments includes a change in volume, accordingly as

needed based on the selected audio information received from memory (col. 40-68 – col. 2, lines 1-7; col. 3, lines 64-68 – col. 4, lines 1-5, 28-46, and col. 6, lines 16-42), which is indicative of audio information (volume information) for individual applications.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of the applicant's admitted prior art by implementing a parallel technique including such a memory and control means for making adjustments according the information received of various audio extremities (devices) taught by Odlen, for the purpose of lessening or alleviating the inconvenience of having to change the volume each time a different audio device and/or application is being used or activated.

**13. Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 18**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

**14. Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen.

Regarding **claim 19**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

**15. Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 20**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system.

Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

Regarding **claim 21**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7).

**16. Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 22**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

**17. Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 23**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). However, Odlen fails to specifically

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disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.



*Citation of Pertinent Art*

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim, U. S. Patent No. 6009181, discloses a method of controlling sound in computer monitor with sound processing functions.

Kunkel, U. S. Patent No. 6122701, discloses device volume control in multimode computer systems.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**Or faxed to:**

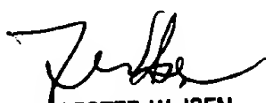
**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG   
August 26, 2002

  
FORESTER W. ISEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2700